

What is claimed is:

1. An optical receiver for receiving a signal light propagated from an optical path, the signal light having a frequency response with a concave influenced by an accumulated dispersion of the optical path, the optical receiver
5 comprising:

an optical-to-electrical converter for converting the signal light to an electrical current;

a current-to-voltage converter for receiving the electrical current from the optical-to-electrical converter and for outputting a voltage signal

10 corresponding to the electrical current; and

a filter for filtering the voltage signal from the current-to-voltage converter and for outputting an electrical signal corresponding to the signal light,

wherein the filter has a frequency response with a convex so that the
15 frequency response of the signal light is compensated.

2. The optical receiver according to claim 1, wherein the frequency response of the filter has a peak frequency from 2 GHz to 4 GHz.

20 3. The optical receiver according to claim 2, further comprises a control signal generator having a band-pass filter with a center frequency and a divider;

wherein the band-pass filter receives the voltage signal from the current-to-voltage converter and outputs a filtered signal with a magnitude of
25 the voltage signal at the center frequency, and

the divider receives the voltage signal from the current-to-voltage

converter and the filtered signal from the band-pass filter, and outputs a control signal that is a ratio of the filtered signal to the voltage signal,

wherein the peak frequency of the filter is varied by the control signal from the control signal generator.

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4. The optical receiver according to claim 2, wherein the filter includes at least an inductor with an inductance that is changed by the control signal from the control signal generator.